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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,661	08/03/2001	Pramod K. Arora	495263010035	8348

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EXAMINER

ROBERTSON, JEFFREY

ART UNIT PAPER NUMBER

1712

DATE MAILED: 07/07/2003

JD

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/887,661

Applicant(s)

ARORA ET AL.

Examin r

Jeffrey B. Robertson

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-- The MAILING DATE of this communication appears n the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 15-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/3/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-14, drawn to a composition of alkylsilsesquioxane polymer and binder, classified in class 524, subclass 588.
 - II. Claim 15, drawn to a composition of metal oxide powder and an amphiphilic self-assembly film-forming material, classified in class 106, subclass 401+.
 - III. Claims 16-30, drawn to a method of forming a hydrophobic film of amphiphilic molecules via a molecular beam process, classified in class 427, subclass 248.1+.
 - IV. Claims 31-35, drawn to a method of forming alkylsilsesquioxane polymer, classified in class 556, subclass 400+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions IV and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the alkylsilsesquioxane polymer can be used in products that do not employ a binder.
3. Inventions II and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the

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process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process does not require the use of powdered compositions as in the product claim 15, except in claims 27 and 28, where claims 25 and 26 provide alternate options of form. Also, the composition mixture can be used in processes that do not use molecular beams, such as vapor depositions or molding processes.

4. Claims of groups II and III are not presently related to claims of groups I and IV, because the specified compound of alskylsilsesquioxane is not used in either the composition of Group II (claim 15) or the process of group III.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and the search required for Group I or IV is not required for Group II or III, restriction for examination purposes as indicated is proper.

8. During a telephone conversation between Examiner Padgett and Duane Switzer on 11/13/02 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-14. Affirmation of this election must be made by applicant in

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replying to this Office action. Claims 15-35 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Double Patenting

10. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

11. Claims 1-14 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-14 of copending Application No. 09/935,373. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented. Claims 1-14 of the instant application are identical to claims 1-14 of application serial no. 09/935,373 (see attached copy of US 2002/0045007).

Claim Observations

12. It is noted that in claim 5, line 5, applicant uses the language "most preferably 10-20 carbon atoms" to further modify the phrase "per-fluorinated alkyl ether group of 6-20

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carbon atoms". This language may be considered indefinite for the recitation of a broad limitation followed by a narrow limitation. However in this case, the examiner's position is that this language is not per se indefinite because it is exemplifying the per-fluorinated alkyl ether groups set forth in the claim. Applicant may want to consider amending the claim for clarification by canceling the "most preferably" phrase and inserting that language in a new dependent claim.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1, 2, 5, 7, 8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Heller et al. (U.S. Patent No. 5,616,532).

For claims 1 and 12, in column 5, lines 56-58, Heller teaches binder compositions containing mixtures of alumina or silica and siloxanes. For claims 10-12, in column 5, lines 65-67, Heller teaches that metal oxides such as aluminum oxide is used. In column 7, lines 1-9, Heller teaches that polysilsesquioxanes such as methyl-silsesquioxane may be used. In column 7, lines 31-33, Heller teaches that these

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polymers can be solids. For claims 2 and 12, in column 14, lines 26-49, Heller shows examples where the silsesquioxane makes up 27% of the composition. For claims 5, 7, and 8, in column 6, lines 56-67, Heller teaches that the polymer precursors include methyltrichlorosilane where for applicant's formula R_mSiX_n , R=methyl, X=halogen, chloride, $m=1$, and $n=3$.

15. Claims 1, 2, 5, 7, 8, and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Itoh et al. (U.S. Patent No. 6,153,689).

For claims 1 and 10-12, in column 3, lines 37-41, Itoh teaches a composition containing a polymethylsilsesquioxane and silica. In Reference Example 1, column 8, line 61 through column 9, line 11, Itoh teaches that the polymethylsilsesquioxane polymer used is a solid. For claims 5, 7, and 8, here Itoh teaches that the precursor to the silsesquioxane polymer is methyltrichlorosilane where for applicant's formula R_mSiX_n , R=methyl, X=halogen, chloride, $m=1$, and $n=3$. For claims 2 and 12, in Example 1, column 9, line 60 through column 10, line 6, Itoh teaches that 100 weight parts of polymethylsilsesquioxane, 333 weight parts of silica, 0.25 parts tin octylate, and 124 parts methyl ethyl ketone make up the composition. This means that the silsesquioxane is present in about 18%.

Conclusion

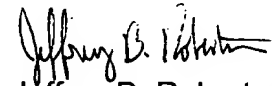
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Clark (U.S. Patent No. 3,898,090), Chi et al. (U.S. Patent No. 4,460,639), Miyamichi et al. (U.S. Patent No. 5,512,351), (Ushizaka et al. (U.S. Patent No. 5,415,912), and Kanji et al. (US 2002/0031488) are cited for general interest.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (703) 306-5929. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Dawson can be reached on (703) 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Jeffrey B. Robertson
Primary Examiner
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JBR
June 30, 2003